

In the Abstract:

ABSTRACT OF THE DISCLOSURE

~~AN OPTICAL DEVICE AND A METHOD FOR CONVERTING WDM SIGNALS INTO AN OTDM SIGNAL AND VICE VERSA~~

The invention relates to a A device and a method for converting WDM signals into an OTDM signal. The device comprises shifting means (102, 103, 104) adapted to introduce a A time shift is introduced between the pulses of the WDM signals carried by the optical carriers. [[,]] A modulation means is (112, 113, 114) adapted to modify the optical power of the WDM signals, and an optical temporal multiplexer/ demultiplexer (120) is provided. [[,]] a birefringent propagation medium (130) into which the The WDM signals are injected into a birefringent propagation medium (130) in such a manner as to achieve a soliton trapping phenomenon. [[, and]] An absorption means (140) is adapted to introduce optical losses into the components of the OTDM signal. This device technique performs WDM/OTDM conversion at very high bit rates. It also performs OTDM/WDM conversion. It is intended to be installed in long-haul telecommunication networks.